WO 2005/082269 PCT/US2005/003105

14

CLAIMS

1. A dental model tray that is made entirely of a polymeric material and is used in forming a dental model from casting material poured on said tray, said dental model tray comprising

5

10

15

20

25

30

a substantially planar base that forms the floor upon which dental casting material is poured in forming a dental model;

a side wall extending upwardly from a perimeter of said base so as to form a cavity having an open top facing upwardly from said base;

a thin, membrane-like connector member which is formed integrally with the perimeter of said base and a lower side edge of said side wall and thus connects the perimeter of said base with the lower side edge of said side wall, said connector member being frangible and easily broken so that said side wall can be torn away from said base and discarded after dental casting material has hardened in said cavity formed by said side wall.

- 2. The dental model tray in accordance with Claim 1 wherein said connector member extends continuously along the entire length of the lower edge of said side wall which is connected to the perimeter of said base.
- 3. The dental model tray in accordance with Claim 1 wherein said connector member is formed as a plurality of spaced apart thin tabs which interconnect said base with said lower edge of said side wall.
- 4. The dental model tray in accordance with Claim 3 wherein there are at least about 4 of said spaced apart thin tabs which interconnect said base with said lower edge of said side wall.
- 5. The dental model tray in accordance with Claim 1 wherein said dental model tray further includes an

WO 2005/082269

5

10

15

20

25

30

15

PCT/US2005/003105

ell-shaped member that extends from a back side of said base;

said ell-shaped member comprising first and second legs that are joined together at a common juncture and extend from said juncture at an angle of substantially 90 degrees relative each other;

a distal end of said first leg of said legs being attached to said back side of said base such that said one leg extends from said base so that said one leg lies in a plane that is parallel to a planar upper surface of said base;

each of said first and second legs is formed in the shape of a flat strip having a width of about 3/8 inch to 5/8 inch and a thickness of about 3/64 inch and 5/64 inch; and

means associated with a distal end of said second leg of said ell-shaped member for removably engaging a corresponding distal end of a second leg of a mutually respective similar ell-shaped member of another mutually respective similar dental model tray so that the second legs which are so engaged at their distal ends can pivot about those engaged distal ends in a common plane containing said first and second legs of said engaged ell-shaped members.

- 6. The dental model tray in accordance with Claim 5 wherein means are provided for removably attaching said distal end of said one leg to said base.
- 7. The dental model tray in accordance with Claim 6 wherein said means for removably attaching said distal end of said one leg to said base comprises

a slide block integrally formed at said distal end of said one leg;

a back wall extending upwardly from said back side of said base;

WO 2005/082269 PCT/US2005/003105

16

an upwardly extending slot-like opening in said back wall of said base, said upwardly extending slot-like opening adapted to receive in snug sliding manner said slide block of said distal end of said one leg so as to firmly hold said one leg in firm engagement with said back wall of said base.

5

10

8. The dental model tray in accordance with Claim 7 wherein a stabilizer wall extends from said common juncture of said first and second legs to a position on said block that is spaced from the intersection of said block and said first leg.